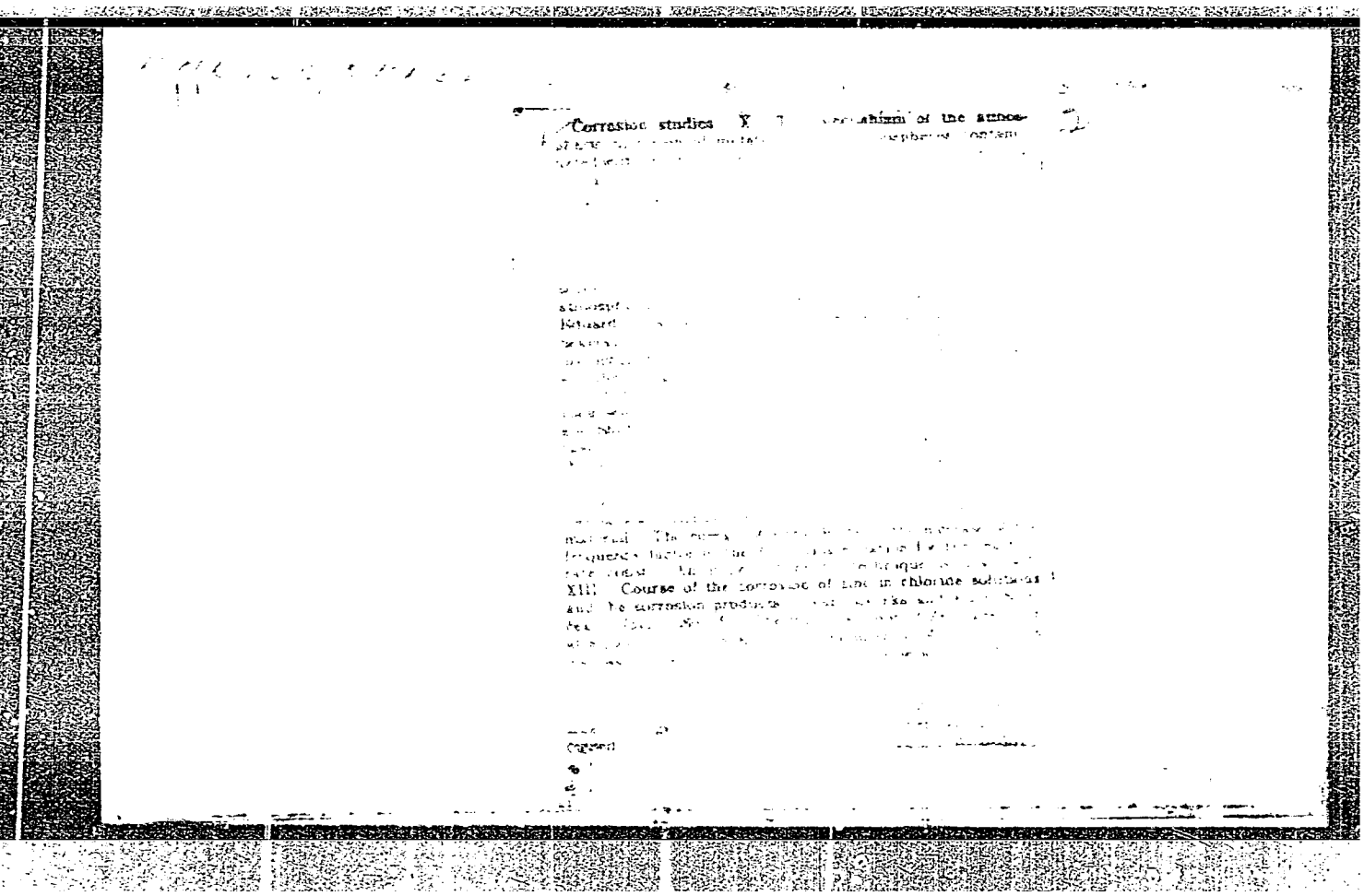
BARTON, K.

BARTON, K. Problem of standardizing accelerated corrosion tests. p. 174.

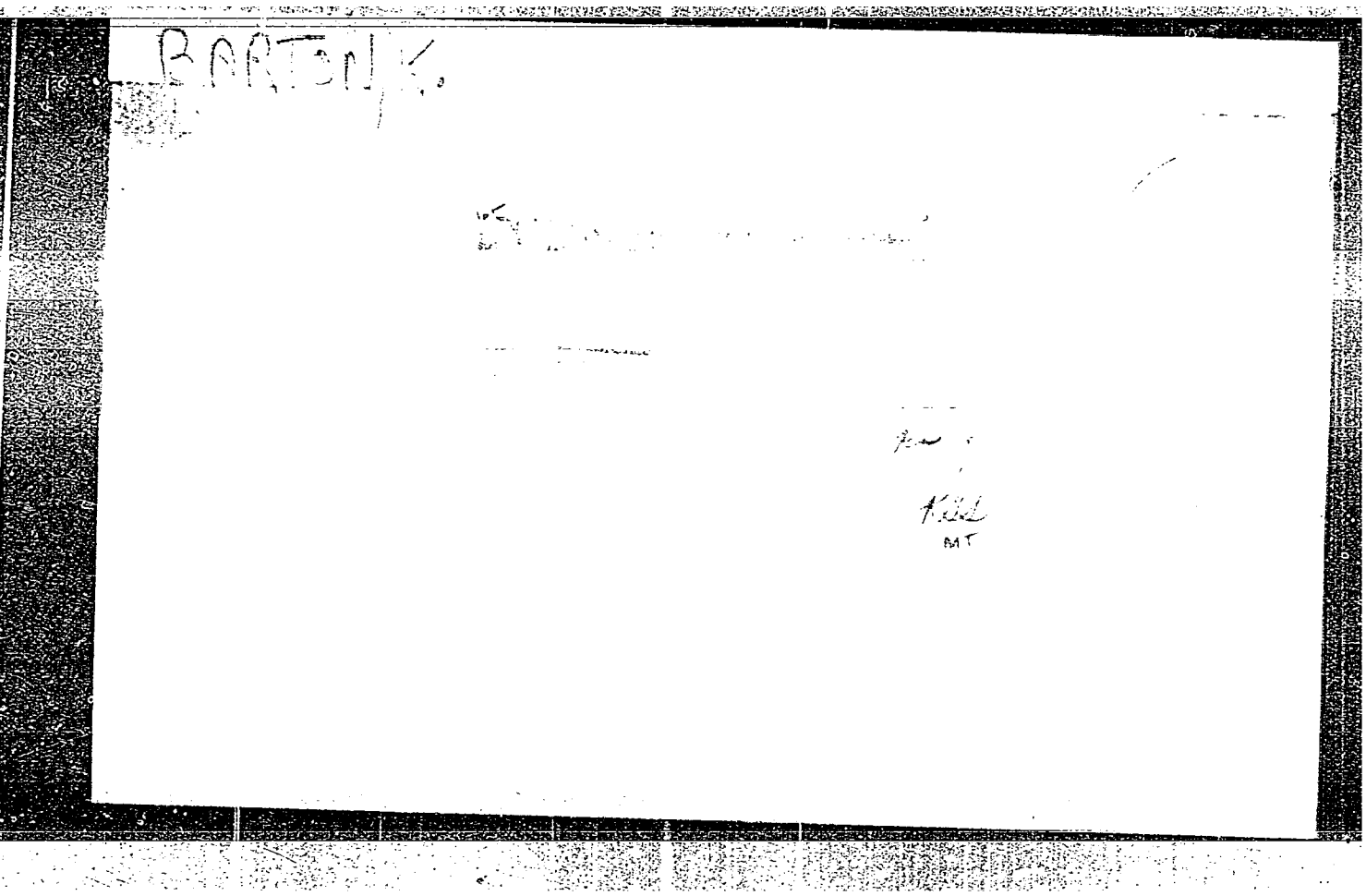
Vol. 5, no. 8, Aug. 1956
NORMALISACE
TECHNOLOGY
Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957



Corrosion studies X

XIII Course of the corrosion of zinc in chloride solutions



18(7) PHASE I BOOK EXPLOITATION CZECH/1544

Bartoň, Karel, Engineer, and Karel Smrček, Engineer

Methody zkoušení korosní odolnosti materiálů (Methods for Testing the Corrosion Resistance of Materials) Prague, SNTL, 1957. 289 p. 2,000 copies printed.

Ed.: František Mikš, Engineer; Draft Reviewers: Josef Teindl, Doctor, Engineer, Professor, and Rudolf Pospíšil, Doctor, Engineer; Manuscript Reviewer: Rudolf Kopec, Engineer; Tech. Ed.: Vlasta Vitová; Chief Ed. for Literature on Mechanical Engineering (SNTL): Josef Klepetko, Engineer.

PURPOSE: The book is intended for middle and top categories of workers in technical and acceptance inspection in various kinds of plants and for designers and scientific workers in research institutes. It may also be used as a teaching aid in trade schools and colleges.

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Methods for Testing (Cont.) CZECH/1544

COVERAGE: The book deals with the theory and practice of corrosion testing discussed from the modern viewpoint on corrosion processes. Some corrosion tests and methods of determining the corrosion resistance of materials under various conditions are described, and suggestions are presented for selecting the type of test for a given form of corrosion attack. The preparation of samples for corrosion tests is also described, as well as determination of corrosive environment and its properties and the method of recording the test results. Methods of evaluation of corrosion tests by weighing and visually, and means of testing corrosion resistance in atmospheric and operating conditions are also described. Laboratory tests under simulated operating conditions are described and conditions under which accelerated laboratory corrosion tests can be created are analyzed. Accelerated laboratory tests for atmospheric corrosion and for corrosion in solutions and in soil, indirect corrosion tests in standard solutions causing intercrystalline corrosion, as well as dezincification of brass and pitting corrosion, are described in detail. Some concepts used in this field are brought together and defined in appendices. No personalities

Card 2/9

are mentioned. References are given at the end of each chapter.

TABLE OF CONTENTS:

CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Corrosion. Corrosion Protection.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67810.

Author : Barton K., Beranek E., Bartonova S.
Inst : Not given.
Title : Investigation of Corrosion. XV. Mechanism of Formation of Corrosion Products on Steel and Zinc in Humid Atmosphere Containing Small Quantities of HCl Vapor.

Orig Pub: Chem. listy, 1957, No 10, 1787-1790.

Abstract: The rate of corrosion (K) of steel and zinc in humid atmosphere containing acid vapors depends on numerous factors of which the following ones

Card 1/3

- CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Corrosion. Corrosion Protection.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67810.

Abstract: are important: absorption of acid gases by water, hydrolytic type of a reaction that yields products of K, the nature of salt products of K and others. The authors investigated kenetics of K for Fe and Zn in an atmosphere with relative humidity of 99.86 and 75% containing HCl of 1 x 10^{-4} and 2 x 10^{-3}%. The results showed that with Zn, centers of K were not found, however, with Fe they can be detected after 17 hours of exposure. The K-vs time curves indicate that corrosion starts only after a film of oxides is destroyed which occurs after approx. 20 hours. Increase in the rate of K is attributed to the formation of hygroscopical products of K. In the case of Fe it is characterized by an increased number of centers of K. While in the case

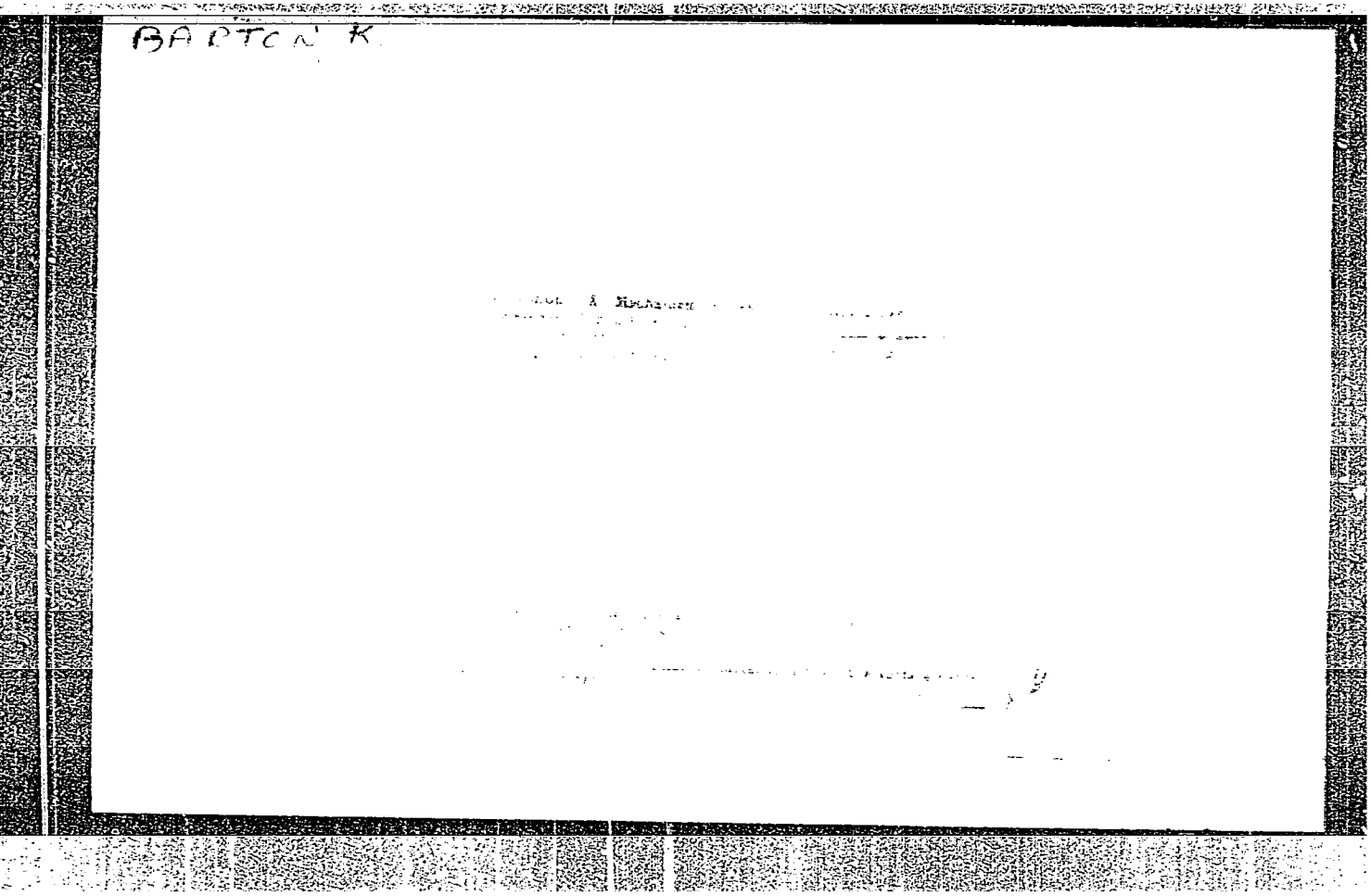
Card 2/3

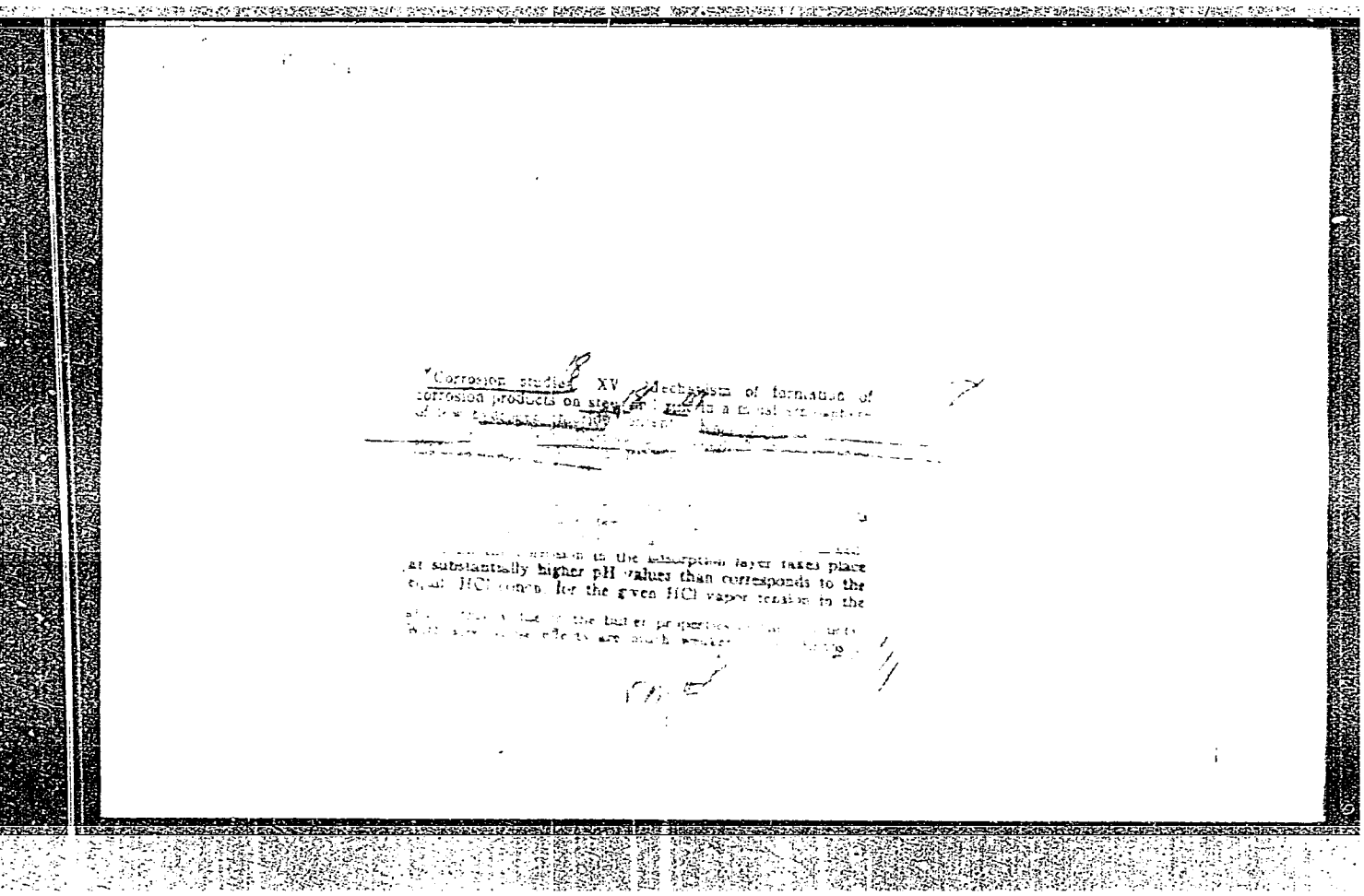
CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Corrosion. Corrosion Protection.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67810

Abstract: of Zn the rate of K decreases due to the formation of chlorides of Zn, whose composition changes as a function of time. Corrosion of Zn takes place at higher values of pH than those corresponding to the equilibrium concentration for vapor pressure of HCl in an atmosphere. The above was responsible for buffering of the products of K. For Part XLV see Ref Zhur-Khimiya, 1958, 25,466.

Card 3/3





"Corrosion studies XV ... mechanism of formation of corrosion products on steel ... as a final ...

... at substantially higher pH values than corresponds to the ... for the given HCl vapor tension in the ...

BARTON, KAREL

The effect of dust on the atmospheric corrosion of metals. Karel Barton (Staatl. Forschungsinst. Materialschutz, Prague). *Werkstoffe u. Korrosion* 9, 547-9(1958).—On the basis of numerous tests it appears unnecessary to raise the factor of industrial dust in short-term corrosion tests in the lab. No effect of dust with higher adsorption capacity for water vapor and SO_2 could be found. It appears probable that these properties of the dust were suppressed by those of the corrosion products which are formed in greater amts. A slight corrosive effect can be expected in clean atm. with dusts which show a certain portion of Cl^-- and SO_4^{--}-contg. leaching constituents. Different adsorptive capacity for water vapor has no effect on the aggressiveness of the dust. On Fe, dusts with a small content of leaching constituents form corrosion centers in clean atm.; however, in the absence of corrosion-promoting stimulators, these spread only extremely slowly. With nonferrous metals only tempering colors are formed in an analogous manner.

M. P. Qu[illegible]

Card 1/1 aht

BARTON, K.

Protection of metals against atmospheric corrosion in the tropics. p. 509.

SLABOPROUDY OBZOR. (Ministerstvo vesobecniho strojirenstvi, Ministerstvo, spoju a Ceskislovenska vedecko-technicka spolecnost, sekce elektrotechnika) Praha, Czechoslovakia, Vol. 20, No. 7, July 1959.

Monthly List of East European Accessions. (EEAI) LC, Vol. 8, No. 11, November 1959.

Uncl.

80372
Z/009/60/000/04/035/041
E142/E235

18.7400

AUTHORS: Bartoň, K., Černáková, D., Hron, J., and Bartoňová, S

TITLE: Anti-Corrosive Paints Containing Ion Exchange Resins

PERIODICAL: Chemický průmysl, 1960, Nr 4, pp 214-217

ABSTRACT: Corrosion under-coating compositions are influenced by the action of anions, especially of SO_4^{2-} and Cl^-. The authors suggest that it is possible to simulate the most important properties of anti-corrosive pigments i.e. the ability to form insoluble salts with anions. The proposed anti-corrosive paints comprise cation exchange resins with Ba^{2+} and Pb^{2+} in the cycle. These reduce and under optimum conditions inhibit corrosion under the coating (Figs 1, 2 and 3). These paints were tested on a laboratory scale and for one year under industrial conditions; it was found that they gave more satisfactory protection to steel even if the coating was applied on a fairly thin layer of rust. They give protection which is almost as effective as that of lead base anti-corrosive pigments, and it is possible to formulate coatings with a shorter drying time, which can be sprayed. They can be applied in plants where the removal of rust is often

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80372

Z/009/60/000/04/035/041
E142/E235

Anti-Corrosive Paints Containing Ion Exchange Resins

difficult. There are 3 figures, 3 tables and 15 references, 6 of which are English, 1 Italian, 2 German, and 6 Czech.

ASSOCIATION: Státní výzkumný ústav ochrany materiálu G. V. Akimova, Praha (State Research Institute for the Protection of Materials "G. V. Akimov" Prague)

SUBMITTED: September 1, 1959

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Z/032/63/013/001/003/004
E073/E483

AUTHORS: Bartoň, K., Engineer, Veselý, V., Candidate of Sciences, Engineer, Orač, O.

TITLE: New method of improving the resistance of steel to atmospheric corrosion

PERIODICAL: Strojírenství, v.13, no.1, 1963, 46-51

TEXT: Although copper is the most effective alloying element for inhibiting atmospheric corrosion of low-alloy steels, steels of this type with a high copper content are not produced in Czechoslovakia because of difficulties in sorting scraps and the consequent danger of undesirable build-up of copper in hot-rolled steels. The authors have, therefore, attempted to find other effective means of improving the resistance of steel to atmospheric corrosion by simulating the functions of alloying elements which induce in steel a corrosion behaviour similar to that of nonferrous metals. It can be assumed on the basis of theoretical considerations that thin porous layers of nonferrous metals, which are able to form alkaline salts under atmospheric conditions, will impede corrosion and serve as a very good base

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for painting. The tests were carried out on the following steels: carbon steel ČSN 11340 (0.10% C, 0.06% S); ČSN 11374 + 0.2% Cu (0.29% Cu, 0.03% S); ČSN 11340 coated with a very thin "case-hardened" copper layer; ČSN 11340 with a 0.03 mm thick metallized zinc layer deposited on sand-blasted surface; ČSN 11340 with standard rust caused by 3 days exposure to CO_2 in a condensation chamber to CO_2; ČSN 11340 with a 0.03 mm thick aluminium layer; ČSN 11340 with a 0.03 mm thick aluminium layer produced by metallizing sand-blasted surface; ČSN 11340 with a pre-rusted surface and a metallized layer of 0.03 mm thick aluminium. The mechanism of the action of both the additions to the steel and of the outer coatings was studied. Theoretical conclusions: 1) The kinetics of prolonged atmospheric corrosion are influenced by the mechanism of formation and the properties of the rust itself. 2) The main properties of rust which influence corrosion are: ability to combine with SO_4^{2-} (or Cl^-) ions and form insoluble compounds and the critical humidity. Both these properties are closely linked since the presence of soluble salts in the corrosion products causes chemical condensation at low humidity.
Card 2/4

3) The action of the alloying elements is based on improving the protective properties of the corrosion products, as explained in the previous point; these elements become ineffective in a medium with a humidity always exceeding the critical level.
Practical conclusions: 1) The action of alloying additions in low-alloy steels can be simulated by a thin, porous coating of zinc (or any other metal capable of forming stable alkaline salts, i.e. sulphides or chlorides). 2) Thin, porous zinc layers produced, for instance by metallization, will meet these requirements and can be applied even to a rusty surface. Good adhesion of the coating ensures that the reactions between zinc and the soluble constituents of the rust (which can be accelerated by flushing with dilute 0.1% H_2SO_4) take place; as a result products are formed which are non-aggressive, protective and likely to improve the service life of the applied paint. In this way, considerable savings can be achieved by reducing the thickness of the zinc layer below the paint layer to about 0.03 mm and by dispensing with sand-blasting. It is obvious that the success of this method will be impeded by the presence of scale. Practical
Card 3/4

New method of improving ... Z/032/63/013/001/003/004
E073/E483

experiments have shown that flame-cleaned surfaces are fully satisfactory for metallizing with thin zinc layers. This economical and effective method is the subject of a patent application and has been introduced in industry. There are 6 figures and 6 tables.

ASSOCIATIONS: SVÚOM, Praha (SVÚOM, Prague) (K.Bartoň, V.Veselý)
Stavomontáže, Banská Bystrica (Z.Krajíc, O.Oráč)

Card 4/4

BARTON', Karol [illegible], Karel]; BARTONICH [illegible]

Corrosion control in the Czechoslovak chemical industry. Khim. prom. no.5:394-397 My '64. (MIRA [illegible])

1. Gosudarstvennyy nauchno-issledovatel'skiy institut zashchity materialov imeni G.V. Akimova, Praga.

ACC NR: AM6029661 Monograph CZ/

Bartonicek, Robert (Engineer; Candidate of Sciences) Barton, Karel; Bret, Zdenek; Cermakova, Dagmar; Cerny, Miroslav; Cihal, Vladimir; Dvorak, Alois; Franz, Ferdinand; Holinka, Miroslav; Mechura, Jaroslav; Nemcova, Jitka; Prazak, Milan; Rypar, Vratislav; Spanily, Jaroslav; Spanily, Vlastimil, Sverepa, Otakar

Corrosion and anticorrosive protection of metals (Koroze a protikorozni ochrana kovu) Prague, NCAV, 1966. 719 p. illus., biblio., index. Errata slip inserted. 2500 copies printed.

TOPIC TAGS: corrosion, corrosion rate, corrosion resistance, ~~corrosion prevention~~, protective coating, corrosion inhibitor, metal corrosion, alloy corrosion, CORROSION RESISTANT METAL

PURPOSE AND COVERAGE: This book is intended for scientists, engineers and technicians concerned with corrosion problems. The book is a collection of articles by several authors on the corrosion of metals and alloys and corrosion prevention.

TABLE OF CONTENTS

Card 1/3

ACC NR: AM6029661

Card 2/3

ACC NR: AM6029661

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 205/ SOV REF: 198/
OTH REF: 999/

Card 3/3

BARTON, L.

"Some Information on the New Method of Bricklaying and Transportation." p. 58
(Stavebni Prumysl, Vol. 3, no. 3, Feb. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress, Feb. 1954, Uncl.

BARTON, I.

"How to Expand Socialist Competition." p. 220
"Experiences of the Competition to Reduce the Cost of Construction and to Economize on Building Materials." p. 225 (Stavebni Prumysl, Vol. 3, no. 10, May, 1953, Praha)

BARTON, L.

"Mechanization of the Filling of Joints in Masonry Constructions." p. 364 (Stavebni Prumysl, Vol. 3, no. 15/16, Aug. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress, Feb. 1954, Uncl.

Using emulsion for flax fibers. p. 232. TEXTIL. (Ministerstvo lehkeho prumyslu) Praha. Vol. 9, no. 8, Aug. 1954.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

BARTON, M.

Chemical damages to the cellulose in flax.

p. 14. (Veda a Vyzkum v Prumyslu Textilnim. No. 1, 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

BARTON', Nikolay Emmanuilovich, CHERNOV, Igor' Yefimovich, OSIPOV, L.G., kand. tekhn. nauk, retsenzent; PROFERANSOV, D.P., inzh., retsenzent; GRONDA, V.I., red.

[Architectural elements; parts of buildings] Arkhitekturnye konstruktsii; chasti zdanii. Moskva, Vysshaia shkola, 1965. 342 p. (MIRA 18:12)

BARTON, V.; SART, J.

Use of liquid hydrocarbons in the gas industry. Paliva 44 no.3:82-89 Mr '64.

1. Association of Gas Plants, Prague.

BARTON, Vlastimil, inz.

Statistical control of the operation of transmission equipment. Czspoje 7 no.2:9-13. F '62.

1. Pracovnik Spravy dalkovych spoju, Praha.

BARTON, Vlastimil, ing.

Development of the telecommunication techniques in Hungary.
Cs spoje 7 no.6:25 Je '62.

CZECHOSLOVAKIA

BARTON, V.; BREZINOVA, V.; BURIAN, M.; HRADECKY, M.; MIKULECKY, B.; STEPANEK, J.; Research Institute of Mathematical Machines, Prague. /Orig. version not given_7.

"The Problem of Assimilating Complicated Stimuli During Sleep."

Prague, Activitas Nervosa Superior, Vol 8, No 2, Jun 66, pp 208-209

Abstract: EEG recordings of 20 subjects who received a series of 25 or 50 single words in a foreign language (mostly Japanese) with a Czech translation during sleep are discussed. The probability of influencing the learning process through imprinting of individual words during sleep seems very low. There were changes in the EEG recordings caused by whether the subject knew or did not know the word which he heard during the sleep. No references. Submitted at the 4th Conf. of Exper. and Clin. Study of Higher Nerv. Functions at Mar. Lazne, 12-15 Oct 65. Article is in English.

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L 45360-66 EWP(j)/T IJP(c) RM

ACC NR: AP6033603 SOURCE CODE: CZ/0043/66/000/001/0028/0036

AUTHOR: Lazar, Milan (Engineer; Candidate of sciences; Bratislava); Barton, Jaroslav--Barton', Ya. (Engineer; Candidate of sciences; Bratislava) 39 B

ORG: Laboratory of Polymers, Slovak Academy of Sciences, Bratislava (Laboratorium polymerov Slovenskej akademie vied)

TITLE: Rate of formation of cross-linking interpolymers in the mixture of atactic polypropylene - polyethylene - dicumyl peroxide

SOURCE: Chemicke zvesti, no. 1, 1966, 28-36

TOPIC TAGS: polymer cross linking, reaction rate, radical polymerization, macromolecule

ABSTRACT: The number of cross-linkings among the macromolecules of atactic polypropylene and polypropylene per mole of decomposed dicumyl peroxide was investigated. It was determined that the cumyloxyradical reacts 3.8 times faster with a basic unit of polypropylene than with a unit of polyethylene. Orig. art. has: 2 figures, 8 formulas and 3 tables. [Based on authors' Eng. abst.] [JPRS: 34,805]

SUB CODE: 07 / SUBM DATE: 19May65 / ORIG REF: 003 / OTH REF: 006

Card 1/1 alw

0220 1642

S/194/62/000/006/010/232
D222/D309

AUTHORS: Bartoněk, Ivo, and Pola, Ivan

TITLE: The use of Aritma punched-card equipment for determination of the gravitational and magnetic anomalies in geophysical investigations

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-1-111 s (Inform. služba pracovniky SPS Aritma, 1960 no. 24-25, 449-453)

TEXT: New locations of minerals are, as a rule, discovered by indirect methods of geophysical prospecting. The deposits of ore, oil and gas are found from anomalies of the gravitational field (for ore deposits an increased gravitational field is observed, i.e. a positive gravitational anomaly, while for deposits of oil and gas -- a negative anomaly). The location of iron ore deposits is determined most simply from magnetic anomalies. It is of great importance for the reduction of the cost involved in sinking a shaft, or drilling a well, etc. to have an accurate chart of the corresponding isolines which makes it possible to establish the thickness of the

Card 1/3

layer. The processing of the data is carried out by finding the second derivatives of the anomaly parameters, using the so-called method of 17 points with the help of a special stencil. In order to reduce the processing time of the initial data and the work spent on calculations by the Hodonin (ChSSR) computing office, Aritma-520 type computers are used. The survey data are processed in two ways -- reduction and sorting. With the first method each cell in the net of the stencil is assigned a 4-digit number depending on its X and Y coordinates and on the point for which the derivative was calculated (each point is brought onto 17 punched cards). The cards also contain the corresponding coefficients for the calculation of the second derivatives, and other data necessary for the calculations. They are processed in the computer, where the data of 17 cards is summed. With the second method the cards contain data for several points, which reduces the total number of cards, but complicates their processing (additional operations are introduced for their multiple processing and sorting, and the requirements for the operating personnel are increased). Drawings and descriptions are given, illustrating the processing of the cards according to both methods. It is indicated that the use of computers reduces the

Card 2/3

The use of Aritma punched-card ...

expense and speeds up the process by a factor of 2, it excludes the possibility of errors, and it makes the conditions of work easier. 3 figures. [Abstracter's note: Complete translation.]

Card 3/3

BARTONEK, Ivo; POLA, Ivan

Use of the punched card system for evaluation of gravimetric measurements. Geofys sbornik 9:83-94 '61.

1. Ustav uzite geofysiky, Brno.

BARTONEK, Ivo, inz.

Determining the time standards by the smallest square method in using the LGP automatic computers. Prace mzda 11 no.7:313-320 Jl '63.

1. Vyvoj nabytkarskeho prumyslu, n.p., Brno.

BARTONEK, Ivo, inz.

Establishment of performance standards on automatic computers.
Pod org 17 no. 12: 551-555 D '63.

1. Vyvoj nabytkarskeho prumyslu, Brno.

L 34649-66 T JK

ACC NR: AP6026248 SOURCE CODE: CZ/0060/66/000/001/0024/0026

AUTHOR: Bartonek, J. (Major; Doctor of medicine); Kvetensky, Jozef (Lieutenant colonel; Doctor of medicine)

ORG: Internal Department, Military Hospital, SNP, Ruzomberok (Vnutorne oddelenie Vojenskej nemocnice SNP)

TITLE: Mass occurrence of rheumatic fever following an infection by beta-hemolytic streptococcus A at a military unit

SOURCE: Vojenske zdravotnicke listy, no. 1, 1966, 24-26

TOPIC TAGS: military medicine, bacterial disease, tissue disease, respiratory system disease, bacteria, penicillin, drug effect, disease control, epidemiology, disease incidence

ABSTRACT: The importance of investigating catarrhal infections of respiratory passages in the prevention of rheumatic fever is described. A case concerning 73 soldiers who were affected by such a catarrhal invection is discussed; 12 became sick with rheumatic fever. The streptococcus causing the infection was sensitive to penicillin. It appears that the focus of the infection was in the kitchen of the unit. Preventive measures that should be applied are discussed. Orig. art. has: 1 figure. [JPRS: 35,348]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 011 / SOV REF: 002
OTH REF: 001

Card 1/1 UDC: 356.33:616-002.771-022.71.214

BARTONEK, MILAN.

Z/059/62/000/003/007/007
D406/D301

AUTHOR: Bartoněk, Milan

TITLE: Exhibition at the 2nd Congress on Resistance-Extensiometry

PERIODICAL: Zpravodaj VZLÚ, no. 3, 1962, 120-121

TEXT: An exhibition, arranged on the occasion of the 2nd Congress on Resistance Extensiometry, showed several novel strain-gage instruments which were discussed at the Congress. Among the exhibits were (A) Measuring and calibration instruments: A stress-level signal counter and a standard stress analyzer for U, I and Z profiles, both developed by the ÚVMV in Prague; a transistorized portable "TR2-VZLÚ" strain-gage apparatus; a "VZLÚ" calibrating box for strain-gages and differential-transformer apparatus; a "VZLÚ-MT" type CZ-01 standard resistor for zero-drift tests. (B) Strain-gage sensors: "VZLÚ" strain-gages for high temperatures (up to 600°C); a series of diaphragm-strain gages, developed by the Machinery Research Institute of the Czechoslovak AS; a great vari-

Card 1/2

Exhibition at the 2nd Congress ...

ety of dynamometers for material-strength tests with capacities ranging from 50 kp to 50 Mp; and special dynamometers for measuring the pressure of rock formations in mines and of mine proppings. (C) Pickup rings: Three types of collector rings for measuring of rotating parts, namely the "VZLÚ-MT" for high revolution rates, and two others for measurings on the main and tail rotors of "HC-3" helicopters; (D) Special resistance strain gages: A water-pressure gage for pressures up to 300 mm H_2O, and a three-component balance for aerodynamic lift, drag, and pitching-momentum measuring. There are 5 figures.

Card 2/2

CZECHOSLOVAKIA

JANOVSKY, I; BARTONICEK, B; BEDNAR, J.

Institute of Nuclear Research of the Czechoslovak Academy of Sciences, Rez by Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 8, 1963, pp 2245-2246

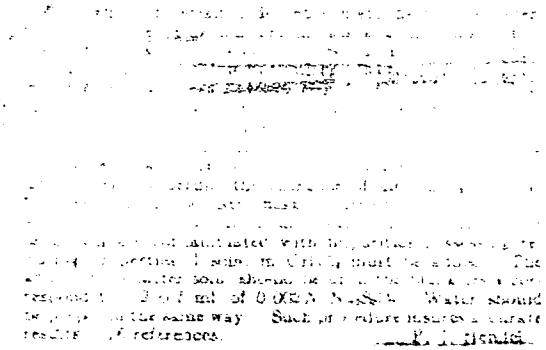
"On the Use of Liquid Formic Acid Solution as a Chemical Dosimeter."

BARTONICEK, Frantisek

Practical use of the copper modified ferrous dosimeter. Jaderna energie 9 no.3:90-92 Mr '63.

1. Zavody V.I. Lenina, Plzen.

Portable, Mass



BARTONICEK, M.

Application of one of the new methods of mathematical statistics in bioclimatology. p.48.
(Meteorologicke Zpravy, Vol. 10, No. 2, Apr. 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

BROD, J.; FENCL, V.; HEJL, Z.; JIRKA, J.; BARTONICEK, M.; KOTANOVA, E.; s technicou spolupraci CHRPOVE, V.; KRAUSOVE, E.; VANICKOVE, M.

Average arterial pressure and the magnitude of pressure amplitude and pulse rate. Cas.lek.cesk. no.13:389-394 '60.
(BLOOD PRESSURE)
(PULSE)

PRAT, V.; BENESOVA, D.; BARTONICEK, M.

Long-term study of blood pressure in rabbits with unilateral chronic pyelonephritis or unilateral hydronephrosis. Physiol. Bohemoslov. 11 no.1:14-23 '62.

1. Institute for Cardiovascular Research, Department of Pathological Anatomy and Microbiology, Faculty of Paediatrics, Charles University, Prague.

(PYELONEPHRITIS exper) (HYDRONEPHROSIS exper)
(BLOOD PRESSURE physiol)

BROD, J.; FENCL, V.; HEJL, Z.; JIRKA, J.; PRAT, V.; statisticka spoluprace BARTONICEK, M.

Results of long-term treatment of chronic glomerulonephritis with corticoids. Cas. lek. cesk. 101 no.45:1332-1338 9 N '62.

1. Ustav pro choroby obehu krevniho v Praze, reditel doc. dr. J. Brod, DrSc.

(GLOMERULONEPHRITIS) (CORTICOTROPIN) (CORTISONE) (PREDNISONE)

[illegible] K.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application . Corrosion. Protection from Corrosion. H-4

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25466

Author : Cerveny Ladislav, Bartonicek Robert.
Inst : -
Title : Corrosion Studies. XIV. Hydrolytic Transfer of 2-Methylbutanol-2 Chromate from Hydrocarbon Phase to the Aqueous and Its Utilization as Corrosion Inhibitor for Steel.

Orig Pub : Chem. listy, 1956, 50, No 12, 1880-1884; Sb. Chekhosl. khim. rabot, 1957, 22, No 3, 908-913.

Abstract : For passivation of steel use is made of the chromate of 2-methylbutanol-2 readily soluble in non-polar solvents, such as for example vaselin oil or other products of petroleum refining, and rapidly hydrolyzed, on contact of such a solution with water, as a result of which there is liberated the CrO_4^{2-} ion which passivates the

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Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25466

surface of steel. The preparation is not a chemical entity; it is prepared by mixing tert-pentanol, at - 5°, with CrO_3 dissolved in vaselin oil, and filtering off the insoluble residue. Content of CrO_4^{2-} in oil amounts to 0.90%. Rate of transfer of the ester from oil into aqueous phase has been investigated as a function of time. Further, were studied the correlations between electrode potential of steel and the concentration of corrosion inhibitor in hydrolyzate, and between hydrolyzate pH value and concentration of CrO_4^{2-}. It was found that the ester is hydrolyzed with sufficient rapidity and that steel is passivated already at a concentration of 0.01 g CrO_4^{2-} per liter. Results show that organic chromates greatly enhance the protective properties of oils and that they can be utilized in practice. Communication XIII see RZhKhim, 1957, 59687.

BARTONICEK R.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application - Corrosion. Protection from Corrosion. H-4

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25467

Author : Bartonicek R., Cerveny L.
Inst : -
Title : Passivating Corrosion Inhibitors as Petroleum-Base Protective Agents.

Orig Pub : Strojirenstvi, 1957, 7, No 3, 199-204.

Abstract : See preceding abstract.

Card 1/1

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Corrosion. Corrosion Control H
ABS. JOUR. : RZhKhim., No 17, 1959, No. 61243

AUTHOR : Bartonicek, R.; Cerveny, L.
INSTITUTE : -
TITLE : Organic Chromates as Passivating Corrosion Inhibitors for Metals Protected by Petroleum Greases
ORIG. PUB. : Chem. prumysl, 1958, 8, No 12, 622-628

ABSTRACT : Passivating action of certain complex esters of chromic acid with tertiary alcohols and its compounds with amines were studied. Solubilities of these substances in water, in hydrocarbons and the rate of their transfer from solutions in hydrocarbons into the water phase were investigated. This data permitted establishing basic conditions that provide satisfactory protection. On the basis of a correlation of the diffusion rate of water through a grease film and of the transfer of CrO_4^{2-} into the water phase, the minimum concentration of an organic chromate per

Card: 1/2

COUNTRY :
CATEGORY :

H

ABS. JOUR. : RZhKhim., No 17, 1959, No. 61243

AUTHOR :
INSTITUTE :
TITLE :

ORIG. PUB. :

ABSTRACT Con'd : 1 kg of protective grease in 2 gr [sic] (based on CrO_4^{2-}) was determined. It was established that the best corrosion retarders were esters having tertiary alcohols. The bibliography covers 13 titles. -- D. Yakesh.

Card: 2/2

Corrosion studies. XVI. Effect of the rate of penetration of water vapor through oily films on the corrosion of steel protected by layers of oil. Robert Bartoníček (Výzkumný ústav ochrany materiálu, Prague). *Chem. listy* 52, 100–5(1958).—The protective effect of oils without inhibitors is very small. The necessary condition for the satisfactory protective action is a min. rate of penetration of water vapor through the protective layer: further, a sol. inhibitor must be added to the hydrocarbon component to lower the corrosion attack on the steel. The protective action of these inhibitors consists in the formation of a hydrophobic layer on the surface of the steel or in their ability to pass from the oil phase to the water phase and to passivate the protected metal. XVII. Effect of hydrogen sulfide on the corrosion of aluminium. Karel Smrček, Ivan Sekerka, and Vladimír Seifert (Výzkumný ústav ochrany materiálu, Prague). *Ibid.* 196–200.—An aq. soln. of H_2S suppresses the corrosion of Al in the pH range 2–9. The pH ranges were detd. for various types of cathodic depolarization during Al corrosion. A reaction between the Al metal and the sulfides of heavy metals in aq. suspension was detected, which causes the intensive corrosion attack on Al; an electrochem. explanation is given. The Al metal reacts with elementary S in aq. suspension at 80–100°. E. Erdős

Distr: 4E2c

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Z/8/60/000/01/002/014
E034/E416

AUTHOR: Robert Bartoníček

TITLE: Influence of the Structure of the Surface on the Chemical Properties of Metals

PERIODICAL: Chemické listy, 1960, Nr 1, pp 14-27

ABSTRACT: The reviewer puts the point that the chemical behaviour of solids depends upon the nature of their surface and that solid surfaces, including metal surfaces, are not equivalent at all points. Further, it is noted that surfaces of different samples of the same substance may differ and that the surface of a metal differs from the internal phases. The surfaces may have implanted impurities as a result of machining and oxidation. The implication for corrosion studies is indicated. The general theme is then developed in the following way:- Influence of chemical composition of surface layer: The study and problems of oxide surface layers and the lack of oxide free standards are mentioned (Ref 1 to 3). Surface impurities introduced during grinding and rolling are noted (Ref 4,5) in relation to electrolytic and other types of corrosion (cf Ref 6,7).

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E034/E416

Influence of the Structure of the Surface on the Chemical Properties of Metals

Effect of structural properties: Chemical processes which occur at metal surfaces are above all influenced by properties of the metal as a whole so long as the various factors are evenly distributed. This has been examined in relation to corrosion (Ref 8 to 10). Crystallographic aspects involving polycrystals, the effect of mechanical and chemical polishing and amorphous surfaces are also dealt with (Ref 11 to 14). Their effect on surface oxidation is noted (Ref 15,16) - both rate and type. Mechanical and physical properties: Crystallographic aspects are further reviewed - the variation in crystal growth and its effect on electrical (Ref 19), magnetic (Ref 20) and thermal and mechanical (Ref 21 to 23) properties are considered (see also Ref 18). Atom diffusion is also affected (Ref 18,27). Table I: Influence of extraction on formation of texture in metals with cubic area centred lattices (Cu, Al, Au, Ag) (after Zmeskal, Ref 7). (Subtitles:

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E034/E416

Influence of the Structure of the Surface on the Chemical Properties of Metals

Treatment of metal: - Casting, electrolytic metal plating, applied films, wire drawing, cold rolling, compression. Main orientation:- [100] cubic axis perpendicular on cold surface, axis perpendicular to surface, [111] axis perpendicular with wire axis, [110] parallel with plane and direction of rolling, [112] is parallel with direction of rolling, main orientation [110]). Table II: Anisotropic physical properties of zinc (Ref 25) (Subtitles:- Property - critical tension, thermal ductility 10^{-6} between 20-100°C, specific electrical resistance $10^{-6}\ \Omega$ cm at 20°C, specific thermal conductivity watt/cm degree at 20°C, thermoelectric power vis-a-vis Cu, 10^{-6} V/degree at 40°C, modulus of elasticity kg/mm^2, modulus of elasticity in torsion kg/mm^2, Brinell hardness kg/mm^2. Parallel | Perpendicular: to main axis. Footnote: Minus signifies that the current direction is from cold contact in Cu direction). Chemical properties: These are considered in the light of crystal arrangement

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Influence of the Structure of the Surface on the Chemical Properties of Metals

in the surface (viz Fig 1 (opposite p 24): Cleavage planes and sliding marks on monocrystals of Zn prepared by the Bridgman method). The concept of surface solution in the widest sense (Ref 28) is a guide to chemical properties. Solution in electrolytes: The question of cohesive forces dependent on crystallographic direction are taken into account in considering affinity between reacting substances (cf Ref 30). Various theories of solution are then considered (Ref 31 to 35). Table III: Work required to remove atoms from plane and homopolar polycrystals (after Straisky et al, Ref 29) (Subtitles: Lattice - simple cubic, cubic area centred, cubic body centred, hexagonal tight packing. Plane. Semicrystal). (Comments on table: These calculations of average values of work required for the removal of atoms from the plane of homopolar crystals are in the main solved on the basis of the number of neighbouring atoms in three dimensions. If we consider

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Influence of the Structure of the Surface on the Chemical Properties of Metals

the atom as a cubic elementary building unit then X/Y/Z given as individual symbols: X - number connected proceeding from the centre of the cube and centre of area coming into contact with basic plane, Y - number connected proceeding from the centre of the boundary and centre of cube in direction of basic plane, Z - number connected proceeding from centre of cube and their angles in the direction of basic plane.) The forces involved are further considered (Ref 29,36) as are anisotropic velocities of solution and related topics (Ref 37 to 49). Table IV: Relative velocity of solution of various crystal faces of copper (Subtitles: Etching fluid: 0.3 N acid + 0.1 N H_2O_2. Ratio of highest to lowest velocity of solution. Footnote: Valid for (112) in place of (113)). The influence of crystal faces and forms is considered further (Ref 50 to 65). Electrochemical properties: Equilibrium reversible electrode potentials completely concur with theoretical activities of crystal surfaces

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E034/E416

Influence of the Structure of the Surface on the Chemical Properties of Metals

(Ref 44, 66 to 70). Fig 2: Electrode potentials of crystal surfaces of zinc in 1 N - $ZnSO_4$. E - electrode potential hydrogen degrees in mV; τ - period of measurement, minutes; 1 - polycrystalline surface, electrolytically polished; 2 - polycrystalline surface, strongly etched in 20% H_2SO_4; 3 - polycrystalline surface, fractured by cooling in liquid air; 4 - $(10\bar{2}0)$ face - electrolytically polished; 5 - $(10\bar{1}0)$ face - electrolytically polished; 6 - (0001) face - fractured by cooling in liquid air. The relation between corrosion and electrode potential is then covered (Ref 38,68,69,71) together with crystallographic direction and solution (Ref 44,45,72 to 77). Reaction with gas phase: Thermal treatment of crystals may disrupt the surfaces either as a result of metal evaporation or alteration in surface atoms (see Ref 78 to 82) which also deal with surface chemical reactions. Adsorption and atomic diameters of gas absorbed and atoms involved also have relevance (Ref 80,

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Influence of the Structure of the Surface on the Chemical Properties of Metals

44 to 88, see also Ref 89,93). The orientation of surfaces in relation to catalysis (Ref 79,80,94,95). Crystallographic structure of metals influences, in two ways, during oxidation. Each modification oxidizes with a different velocity. Fig 3: Thermal dependence of oxidation of α - Fe and γ - Fe in CO_2 on water vapour content (after Fischbeck and Salzer, Ref 96). T - temperature in °K, K - corrosion velocity (mg weight increase/hour). Crystallographic orientation also calls forth differing oxidation velocities of various crystal surfaces (Ref 79,97 to 103). The overall oxidation process of metals may be categorized on the basis of the following physical chemical processes: 1. Approach of gas to metal surface. 2. Formation of physically and chemically adsorbed layer of gas. 3. Formation of metal ions from ionic atoms and free electrons. 4. Ionization of oxygen. 5. Diffusion of ions and electrons in the layer. 6. Chemical reaction. 7. Nucleation and growth of

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E034/E416

Influence of the Structure of the Surface on the Chemical Properties of Metals

oxide crystals. 8. Structural change in oxide layer. Formation of oxide film, relative molecular volume (Ref 104,105) and protective permanence of oxide layer are also mentioned. The significance of crystal orientation is again considered in relation to this topic (Ref 107 to 117, 108, 55, 101,102,120). Fig 4 (facing p 24): Formation of nuclei of the oxide FeO during oxidation of iron at 850°C and oxygen pressure less than 10^{-2} mm Hg (after Bardoll and Bernard, Ref 106). Effect of texture on the chemical behaviour of polycrystals: This problem is considered from the viewpoint of surface condition treatment and electrode potential as well as from that of corrosion (Ref 121, 122). Conclusions: It is concluded that it is necessary to use well defined surfaces, especially from the viewpoint of crystallography, for precise physico-chemical measurements. Initial stage measurements are discouraged and the use of electrolytically polished surfaces (or, under certain circumstances, long-period

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E034/E416

Influence of the Structure of the Surface on the Chemical Properties of Metals

etching). Especial attention to the measurement of equilibrium electrode potentials of metals is recommended. There are 4 figures, 4 tables and 122 references, 33 of which are German, 6 Soviet, 5 French, 5 Czech, 10 Japanese, 1 Italian, 1 Polish, 1 Norwegian, 1 Swedish and 59 English.

ASSOCIATION: Státní výzkumný ústav ochrany materiálu, Praha (State Research Institute for the Protection of Materials, Prague)

Card 9/9

BARTONICEK, Robert; NEMCOVA, J.

Protection of acid gas scrubbers by corrosion inhibitors. Chem prum 12 no.9:493-496 S '62.

1. Statni vyzkumny ustav ochrany materialu G.V. Akimova, Praha.

BARTONICEK, Robert

Corrosion by hydrogen and hydrogen sulfide. Ropa a uhlie 5 no.3:82-84 Mr '63.

1. Statni vyzkumny ustav ochrany materialu G.V. Akimova, Praha.

BARTONICEK, Robert

State of the anticorrosion protection in pertoleum refineries.
Ropa a uhlie 5 no.6:166-169 Je '63.

1. Statni vyzkumny ustav ochrany materialu, Praha.

BARTOŇ, Karel [Barton, Karel]; [illegible]

Corrosion control in the Czechoslovak [illegible] industry. [illegible] prom. no.5:394-397 My '64. ([illegible])

1. Gosudarstvennyy nauchno-issledovatel'skiy institut zashchity materialov imeni G.V. Akimova, Praga.

BARTONICEK, Robert

Material selection for equipment exposed to the corrosion caused by the water-hydrocarbon-hydrogen chloride mixture. Chem zvesti 14 no.10:515-520 O '64.

1. State Research Institute of Material Protection, Prague.

L ... EWT(m), EWA(d) EWP(t) EWP(b) JD/WB
ACCESSION NR: AP 047664 Z/0009/64/000/010/0515/0520

AUTHOR: Bartonicek, R. (Bartonichek, R.)

TITLE: Selection of material for equipment exposed to the corroding action of a mixture of water, hydrocarbon, and hydrogen chloride

SOURCE: Chemicky prumysl, no. 10, 1964, 515-520

TOPIC TAGS: corrosion resistant material, corroding action, aggressive medium, aggressivity, corrosion protection, carbon steel

ABSTRACT: The mechanism and kinetics of corrosion in a water-hydrocarbon-hydrogen chloride medium were studied. On the basis of laboratory tests various metallic materials are proposed as suitable for use in the construction of equipment exposed to the corroding action of such a medium. The factors determining the choice of construction materials in dehydrated, moist, and aqueous supersaturated solutions of hydrogen chloride were determined on the basis of the study of the mechanism and kinetics of corrosion of selected metals and alloys in these media. The water, hydrogen chloride, and heat content may be considered basic factors. Since a hydrocarbon solution of HCl with a water content less than 30% of

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L 26368-65
ACCESSION NR: AP4047666

its maximum solubility in hydrocarbon exhibits the lowest aggressivity, the best protection is achieved by drying the hydrocarbon and the hydrogen chloride. Under these conditions the use of carbon steels is suggested. Orig. art. has: 11 figures, 4 tables, and 1 formula.

ASSOCIATION: Statni vyzkumny ustav ochrany materialu, Prague (State Research Institute for the Preservation of Materials)

SUBMITTED: 10Apr64 ENCL: 00 SUB CODE: MM, GC

NO REF SOV: 000 OTHER: 009

Card 2/2

BARTONICEK, Robert

Methods of protecting petroleum industry equipment from corrosion. Ropa a uhlie 6 no.11:328-333 N '64.

1. G.V. Akimov State Research Institute of Material Protection, Prague.

NEMCOVA, Jitka; BARTONICEK, Robert

Mixture of quinoline and isoquinoline bases as corrosion inhibitor. Chem prum 15 no.1:9-15 Ja '65.

1. G.A.Akimov State Research Institute of Material Proteciton, Prague.

ACC NR: AM6029661 Monograph CZ/

Bartonicek, Robert (Engineer; Candidate of Sciences) Barton, Karel; Bret, Zdenek; Cermakova, Dagmar; Cerny, Miroslav; Cihal, Vladimir; Dvorak, Alois; Franz, Ferdinand; Holinka, Miroslav; Mechura, Jaroslav; Nemcova, Jitka; Prazak, Milan; Rypar, Vratislav; Spanily, Jaroslav; Spanily, Vlastimil, Sverepa, Otakar

Corrosion and anticorrosive protection of metals (Koroze a protikorozni ochrana kovu) Prague, NCAV, 1966. 719 p. illus., biblio., index. Errata slip inserted. 2500 copies printed.

TOPIC TAGS: corrosion, corrosion rate, corrosion resistance, ~~corrosion prevention~~, protective coating, corrosion inhibitor, metal corrosion, alloy corrosion, CORROSION RESISTANT METAL

PURPOSE AND COVERAGE: This book is intended for scientists, engineers and technicians concerned with corrosion problems. The book is a collection of articles by several authors on the corrosion of metals and alloys and corrosion prevention.

TABLE OF CONTENTS

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ACC NR: AM6029661

Card 2/3

ACC NR: AM6029661

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 205/ SOV REF: 198/
OTH REF: 999/

Card 3/3

BARTONICEK, V., Dr.

Distribution of carbon disulfide in whole blood, brain & adrenal glands in parenteral and administration in white mice over a given period of time. Pracovni lek. 9 no.1:28-30 Mar 57.

1. Ustav hygieny prace a chorob z povolani v Praze, reditel prof. Dr J. Teisinger.

(CARBON DISULFIDE, admin.
parenteral, distribution in blood, brain & adrenal glands of white mice (Cz))
(CARBON DISULFIDE, pois.
exper. by parenteral admin., distribution in blood, brain & adrenal glands (Cz))
(BRAIN, in var. dis.
distribution of carbon disulfide in exper. pois. by parenteral admin. (Cz))
(BLOOD, in var. dis.
same)
(ADRENAL GLANDS, in var. dis.

BARTONICEK, V., za technicke spoluprace Kreckove, M.

Distribution of free carbon disulfide and of bound carbon disulfide liberated by acid hydrolysis in white rat organs. (Second part). Pracovni lek.11 no.10:504-510 D '59.

1. Ustav hygieny prace a chorob z povolani, Praha, 2, red.prof.dr. J. Teisinger.
(CARBON DISULFIDE metab.)

BARTONICEK, V.

The electrical equipment for the examination of higher nervous activity in man according to Moravek. Activ. nerv. sup. 3 no.2:184-186 '61.

1. Ustav hygieny prace a chorob z povolani v Praze, red. prof. J. Teisinger.

(CENTRAL NERVOUS SYSTEM physiol)

CZECHOSLOVAKIA

BARTONICEK, V., TEISINGER, J., Institute of Work Hygiene and Occupational Diseases, Head prof. Dr. J. Teisinger (Ustav Hygieny Prace a Chorob z Povolani, reditel prof. dr. J. Teisinger), Prague.

"Effect of Stopethyl (Tetraethylthiurem Disulphide) on the Trichloroethylene Metabolism of Man."

Prague, Pracovni Lekarstvi, Vol 15, No 3, April 63, pp 105 - 108.

Abstract [Authors' English summary modified]: Administration of stopethyl decreases the amount of trichloroethanol and trichloroacetic acid that are excreted from human body. Possibility of using it for therapeutic purposes in oral trichloroethylene intoxications is discussed.
4 Figures, 2 Tables, 6 Western, 10 Czech, 1 German reference.

BARTONICEK,V.; KLIMKOVA-DEUTSCHOVA,E.

Some biochemical changes in subjects working with centimeter waves. Cas.lek.cesk. 103 no.1:26-30 3 Ja'64.

1. Ustav hygieny prace a chorob z povolani v Praze (reditel: prof.dr.J.Telsinger); Neurologicka klinika fakulty vseobecneho lekarstvi KU v Praze (prednosta akademik K.Henner) a Neurologicka klinika lekarske fakulty KU se sidlem v Plzni (prednosta: doc.dr.E.Klimkova-Deutschova).

*

ACC NR: AP6019972 SOURCE CODE: CZ/0079/65/007/003/0257/0257

AUTHOR: Bartonicek, V. (Prague) 28

ORG: Psychiatric Research Institute, Prague B

TITLE: Brain monoamines in the specific neurons[22] of albino rats under the influence of tetrabenazine[22] [This paper was presented at the 7th Annual Psychopharmacological Meeting, Jesenik, 20-23 January 1965.]

SOURCE: Activitas nervosa superior, v. 7, no. 3, 1965, 257

TOPIC TAGS: brain, neuron, rat, pharmacology, biochemistry

ABSTRACT: Tetrabenazine causes decrease of 5-hydroxytryptamine (5HT) and of catecholamines in the brain of experimental animals. 50 and 150 mg/kg body weight was administered to rats; 1 hour after the injection the rats became extremely sedated, and exibitid miosis and blepharospasm. The maximum effect was attained 2-4 hours after the injection, and disappeared nearly completely after 8 hours. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 003

Card 1/1 JS

L 20506-66

ACC NR: AP6019992 SOURCE CODE: CZ/0079/65/007/003/0279/0279

25
B

AUTHOR: Bartonicek, V.

ORG: Psychiatric Research Institute, Prague

TITLE: Influence of high doses of imipramine on the intraneuronal levels of brain monoamines in albino rats [This paper was presented at the 7th Annual Psychopharmacological Meeting, Jesenik, 20-23 January 1965]

SOURCE: Activitas nervosa superior, v. 7, no. 3, 1965, 279

TOPIC TAGS: brain, rat, pharmacology, serotonin, neuron

ABSTRACT: Imipramine did not seem to influence the level of 5-HT (serotonin) intraneuronally, but there is probably a limited effect on the cell bodies. Catecholamine levels in the whole neuron are not affected. It seems therefore that imipramine has no direct influence on brain monoamines within the specific neurons, not even in high and sublethal doses. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06/ SUBM DATE: none/ OTH REF: 003

Card 1/1 LS

L 29496-66

ACC NR: AP6019993 SOURCE CODE: CZ/0079/65/007/003/0280/0280

24
B

AUTHOR: Bartonicek, V.

ORG: Psychiatric Research Institute, Prague

TITLE: Effect of phenelzine upon intraneuronal level of serotonin of rat brain /This paper was presented at the 7th Annual Psychopharmacological Meeting, Jesenik, 20-23 January 1965/

SOURCE: Activitas nervosa superior, v. 7, no. 3, 1965, 280

TOPIC TAGS: serotonin, rat, brain, pharmacology

ABSTRACT: All synthetic monoamine oxidase (MAO) inhibitors raise the serotonin level in the brain. 5 mg/kg and 15 mg/kg of phenelzine was administered. No difference in the free behavior of the rats was noticed. A marked increase of serotonin in the brain was always found. Phenelzine exerts an irreversible action upon MAO persisting for more than 48 hours. /Orig. art. in Eng./ /JPRS/

SUB CODE: 06/ SUBM DATE: none / OTH REF: 002

Card 1/1 LS

CZECHOSLOVAKIA

BARTONICEK, V.; Psychiatric Research Institute, Prague. [Orig. version not given]

"Partial Inhibition of Monoamine Oxidase in the Rat Brain Neurons After Pargyline and Nialamide Administration."

Prague, Activitas Nervosa Superior, Vol 8, No 4, Nov 66, pp 367 - 368

Abstract: Experiments conducted with albino rats of the Wistar breed using fluorescent microscopy in the UV range are described. A control group showed a very weak yellow fluorescence in the cell bodies, and a slightly stronger one in the varicose nerve terminals. Administration of Nialamide increased the fluorescence 4 hours after administration; after 48 hours the influence disappeared. Pargyline showed a similar pattern of increased fluorescence. The inhibitory potency of MAO inhibitors may be evaluated from the intensity of the yellow fluorescence within the neurons. 4 Western references. Submitted at the 8th Annual Psychopharmacological Meeting at Jesenik, 18 - 22 Jan 66. Article is in English.

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L 1028-66

ACCESSION NR: AP5025937 CZ/0017/65/054/005/0257/0264

AUTHOR: Gert, Richard (Engineer, Candidate of sciences); Bartonickova, Zdenka (Graduate physicist) 20 B

TITLE: Statistical treatment of switching surges

SOURCE: Elektrotechnicky obzor, v. 54, no. 5, 1965, 257-264

TOPIC TAGS: electric power production, statistics

ABSTRACT: [Authors' Russian and English summaries, modified]: The article discusses the question of which values (from all three phases or only the highest value of each test, should be taken for statistical evaluation and representation of switching surge measurements, and whether the generation of a given overvoltage amplitude has the same probability for each phase. On the basis of tests, suggestions are made for the statistical evaluation of overvoltages. A table is given which summarizes the data which seem necessary for a complete characterization of field tests.] The authors thank Comrade Engineer L. Kostelecki and Comrade J.

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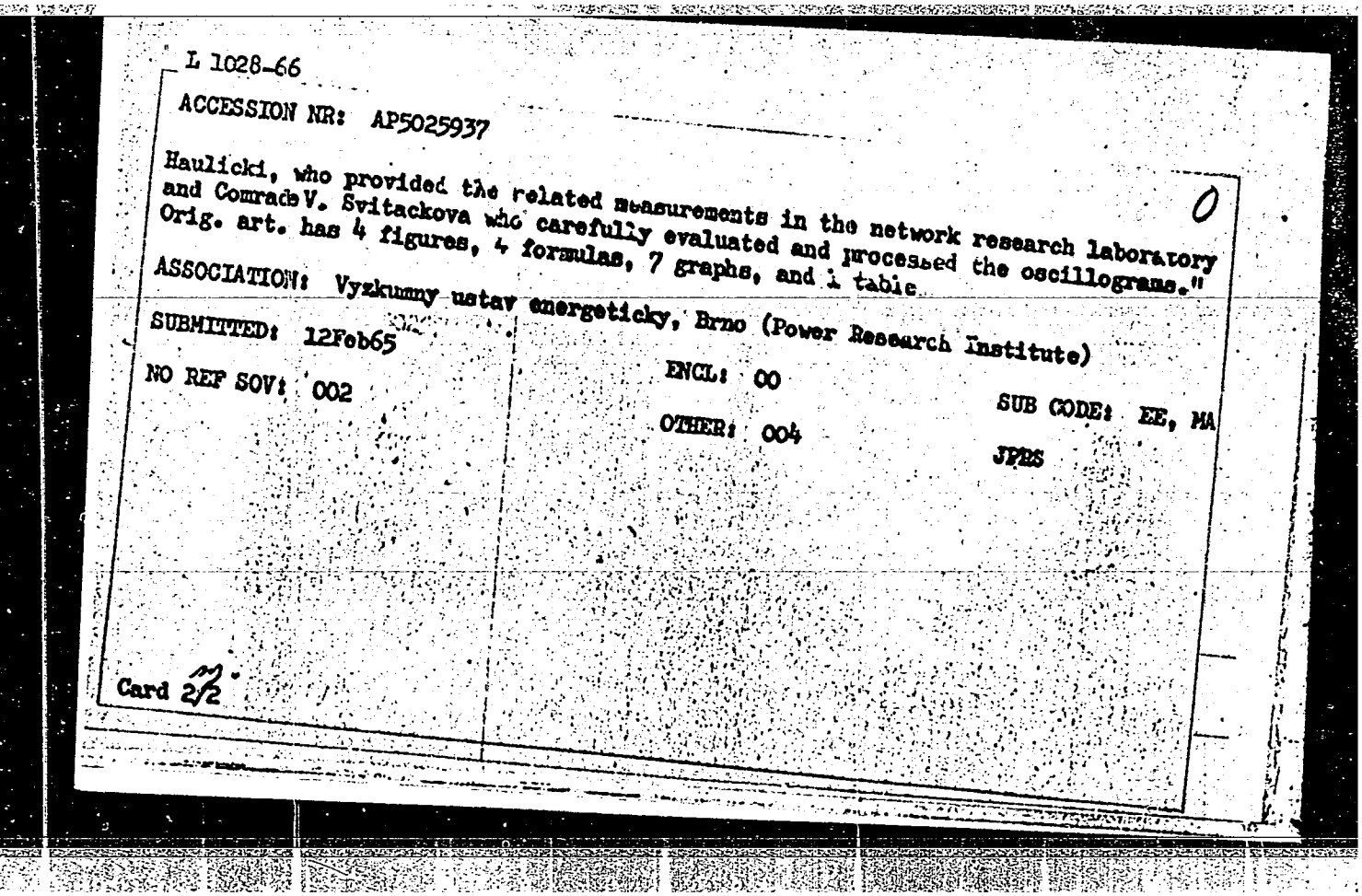

L 1028-66

ACCESSION NR: AP5025937

Haulicki, who provided the related measurements in the network research laboratory and Comrade V. Svitackova who carefully evaluated and processed the oscillograms."
Orig. art. has 4 figures, 4 formulas, 7 graphs, and 1 table.

ASSOCIATION: Vyzkumny ustav energeticky, Brno (Power Research Institute)

SUBMITTED: 12Feb65 ENCL: 00 SUB CODE: EE, MA

NO REF SOV: 002 OTHER: 004 JPRS

Card 2/2

BARTONIK, Z., inz.; SKARABELA, V., inz.; VOJTOVIC, K., inz.

Experiences in operating the Main Worksite of Coke Production Technology branch in the Hutni projekt, Department 7, Frydek-Mistek. Paliva 45 no.4:122-123 Ap '65.

1. Hutni projekt, Frydek-Mistek.

SNABL, P.; mathematisch-statische Bearbeitung: KRACIK, V.; technische Miterbeit: POKORNY, J.; BARTONOVA, M.

The dynamics of arteriosclerosis fat metabolism disorders and their diagnosis by biochemical investigation. Cor vasa 4 no.3:232-242 '62.

1. Krakenhaus mit Poliklinik in Liberec, CSSR.
(FATS metabolism) (ARTERIOSCLEROSIS metabolism)
(MYOCARDIAL INFARCT metabolism) (CHOLESTEROL blood)

BARTONOVA, M.; FUCHS, A.; PALECKOVA, P.

Danger from benzene while working with glues for leather. p. 437.

CESKOSLOVENSKA HYGIENA. Praha, Czechoslovakia. Vol. 4, no. 8, Sept. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, January 1960.

Uncl.

BLEHOVA, B.; HRUBCOVA, M.; BARTONOVA, M.

Mental disorders in the families of patients with phenylketonuria. Cesk. pediat. 18 no.8:701-706 Ag '63.

1. Detska klinika lekarske fakulty hygienicke KU v Praze, prednostka prof. dr. J. Pisarovicova-Cizkova, DrSc. Katedra zdravotnictvi fakulty vseobecneho lekarstvi KU v Praze, vedouci prof. dr. V. Prosek Psychiatricka lecebna v Oparanech, reditel MUDr. Vojtik.

(PHENYLKETONURIA) (MENTAL DISORDERS)
(SUICIDE) (ALCOHOLISM)

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9,2500

Z/039/60/021/09/005/006
E140/E535

AUTHOR: Bartoňová, Naděžda

TITLE: Surface Protection of Printed-Circuit Contacts

PERIODICAL: Slaboproudý obzor, 1960, Vol.21, No.9, pp.547-549

TEXT: A detailed description is given of the procedure for degreasing, neutralization, copper plating, pre-silvering and silvering, and rhodium plating printed-circuit contacts for mechanical reliability and resistance to corrosive atmospheric conditions. The procedure will be employed in redesigned Czechoslovak measuring instruments produced by Metra. The author concludes with a note that it is necessary to employ imported laminates, as domestic products are of unsuitable quality. There are 2 figures and 8 references: 4 Czech, 3 German and 1 English.

ASSOCIATION: METRA Blansko

SUBMITTED: April 6, 1960

Card 1/1

Z/039/61/022/009/003/005
D254/D303

AUTHORS: Bartoňová, Nadežda and Slabá, Libuše

TITLE: Weston normal cells

PERIODICAL: Slaboproudový obzor, v. 22, no. 9, 1961, 550-553

TEXT: The article lists the types of Weston normal cells produced by the Metra Plant in Blansko and describes the methods for testing these reference cells. The Metra, National Enterprise (Measuring Instruments Plant) in Blansko produced 3 types of Class I and Class II saturated Weston normal cells (in compliance with CSN 35 6402), namely the METRA W 100 "non-tilting" which must be kept in vertical position, the METRA W 100 T1 "tilting" which can be used in any position, and the novel miniature METRA W 100 T2 which is intended for portable measuring instruments and has an H-shaped container made of plastic material. The electromotive force of the cells was measured for a period of 6 months with a METRA type QLK compensator bridge and an external DGz galvanometer which has a sensitivity of $1 \cdot 10^{-9}$A. According to the measurements, the METRA-produced Weston cells can be classified into Class I (emf

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Z/039/61/022/009/003/005
D254/D303

Weston normal cells

1.01855 - 1.01875 [V_{abs}], permissible emf change per year 50[μV]) and Class II (emf 1.01845 - 1.01885 [V_{abs}], permissible emf change per year 100[μV]). The internal impedance of the Weston cells was measured by an improved method: After emf measuring, when the compensator was still balanced, this equilibrium was disturbed by a certain value (e.g. $3 \cdot 10^{-4}$ of the nominal value) which resulted in a galvanometer deflection which is inversely proportional to the internal impedance. The internal impedance of Weston cells type METRA ranges from 400 to 1,500Ω. The temperature coefficients of the novel METRA W 100 T2 were measured on the same compensator-galvanometer arrangement with an SF30R thermostat (product of the Mechanik Plant in Dresden, SZG) which has a temperature stability of $\pm$ 0.5°C. The time after which the emf settled at the value characteristic for a certain temperature is 3 - 3.5 hrs when measured in air and 1.5 - 2 hrs when measured in an oil bath. In conclusion the authors state that the Weston normal cells, produced by the Metra Plant in Blansko are suitable for most intricate emf laboratory measurings and that their quality meets world standards.

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Weston normal cells

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There are 7 figures, 2 tables and 14 references: 4 Soviet-bloc and 10 non-Soviet-bloc. The reference to the English-language publications reads as follows: Vinal-Brickwedde: Metastability of Cadmium Sulfate and its Effect on Electromotive Force of Saturated Standard Cells. National Bureau of Standard Cells. Research Paper RP 1389, vol. 26, 1941; L. H. Brickwedde - G. W. Vinal: Electromotive Force of Saturated Standard Cells Containing Deuterium Oxide. National Bureau of Standards Research Paper RP 1389, vol. 26, 1941; G.W. Vinal - Howard M. Langhorne: Effect of Glass Containers on the Electromotive Force of Weston Normal Cells. U.S. Department of Commerce, Bureau of Standards: Research Paper RP 588, vol. 11, Aug 1933; E. F. Mueller - H. F. Stimson: A Temperature-Control Box of saturated Weston Standard Cells. National Bureau of Standards. Research Paper RP 739, vol. 13, Nov 1934.

ASSOCIATION: METRA Blansko, n. p. (METRA Blansko, National Enterprise).

SUBMITTED: April 24, 1961

Card 3/3

CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Corrosion. Corrosion Protection.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67810.

Author : Barton K., Beranek E., Bartonova S.
Inst : Not given.
Title : Investigation of Corrosion. XV. Mechanism of Formation of Corrosion Products on Steel and Zinc in Humid Atmosphere Containing Small Quantities of HCl Vapor.

Orig Pub: Chem. listy, 1957, No 10, 1787-1790.

Abstract: The rate of corrosion (K) of steel and zinc in humid atmosphere containing acid vapors depends on numerous factors of which the following ones

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CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Corrosion. Corrosion Protection.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67810.

Abstract: are important: absorption of acid gases by water, hydrolytic type of a reaction that yields products of K, the nature of salt products of K and others. The authors investigated kenetics of K for Fe and Zn in an atmosphere with relative humidity of 99.86 and 75% containing HCl of 1 x 10^{-4} and 2 x 10^{-3}%. The results showed that with Zn, centers of K were not found, however, with Fe they can be detected after 17 hours of exposure. The K-vs time curves indicate that corrosion starts only after a film of oxides is destroyed which occurs after approx. 20 hours. Increase in the rate of K is attributed to the formation of hygroscopical products of K. In the case of Fe it is characterized by an increased number of centers of K. While in the case

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CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Corrosion. Corrosion Protection.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 67810

Abstract: of Zn the rate of K decreases due to the formation of chlorides of Zn, whose composition changes as a function of time. Corrosion of Zn takes place at higher values of pH than those corresponding to the equilibrium concentration for vapor pressure of HCl in an atmosphere. The above was responsible for buffering of the products of K. For Part XLV see Ref Zhur-Khimiya, 1958, 25,466.

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AUTHORS: Bartoň, K., Černáková, D., Hron, J., and Bartoňová, S

TITLE: Anti-Corrosive Paints Containing Ion Exchange Resins

PERIODICAL: Chemický průmysl, 1960, Nr 4, pp 214-217

ABSTRACT: Corrosion under-coating compositions are influenced by the action of anions, especially of SO_4^{2-} and Cl^-. The authors suggest that it is possible to simulate the most important properties of anti-corrosive pigments i.e. the ability to form insoluble salts with anions. The proposed anti-corrosive paints comprise cation exchange resins with Ba^{2+} and Pb^{2+} in the cycle. These reduce and under optimum conditions inhibit corrosion under the coating (Figs 1, 2 and 3). These paints were tested on a laboratory scale and for one year under industrial conditions; it was found that they gave more satisfactory protection to steel even if the coating was applied on a fairly thin layer of rust. They give protection which is almost as effective as that of lead base anti-corrosive pigments, and it is possible to formulate coatings with a shorter drying time, which can be sprayed. They can be applied in plants where the removal of rust is often

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